



PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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NOBEL AWARD RECOGNIZES HOW ECONOMIC FORCES CAN FIGHT CLIMATE CHANGE

Yale University economist William Nordhaus has devoted his life's work to understanding the costs of climate change and advocating the use of a carbon tax to curb global warming. It is no small irony, that on the same day his research shared in the Nobel Memorial Prize in Economic Sciences, a United Nations panel released its latest report on the mounting dangers of climate change. The report builds upon much of Nordhaus' work and warns that we have only about a dozen years to keep temperatures below 1.5 degrees Celsius to avoid environmental catastrophe. But Nordhaus' work is not about whether or not people and policymakers "believe" in climate change. It is about the market and its ability to address the most serious issue facing humanity in the coming years. Nordhaus showed how capitalism is capable of rising to the challenge of climate change, just as it has to other problems in the marketplace, such as monopolies and ozone depletion.

[Read More at The Conversation](#)



Credit: Craig Ruttle

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UNIVERSAL VACCINE PLATFORM THAT'S CHEAPER AND SHELF STABLE

Currently, many vaccines have to be manufactured in cell culture or eggs, which is expensive and carries the risk of contamination. In addition, most vaccines must be kept refrigerated during the transportation from manufacturers to health care clinics. "The ability to eliminate cell culture or eggs and cold storage will change the process of vaccine development," Pei-Yong Shi, professor in the department of biochemistry and molecular biology at the University of Texas Medical Branch at Galveston. His new vaccine technology could potentially serve as a universal platform for development of live-attenuated vaccines for many viral pathogens. Using UTMB's Zika vaccine as a model, the research group showed that their DNA platform worked very efficiently in mice. After a single low dose, the DNA vaccine protected mice from Zika virus infection, mother-to-fetus transmission during pregnancy and male reproductive tract infection and damage. [Read More at Science Daily](#)



Credit: University of Texas Medical Branch at Galveston





WARMER ARCTIC WATERS ATTRACT SURPRISING VISITORS: CLAMS, FISH AND WHALES

Jackie Grebmeier, a biological oceanographer has been digging up animals in the waters between Alaska and Russia for more than 30 years. And she has noticed a trend: a retreat has begun here at the edge of the Arctic. With temperatures rising, creatures such as amphipods have been inching northward. Meanwhile, clams, fish and whales from balmier climes have begun to move in. A massive migration of fish has already taken place on the other side of the North Pole. Above Scandinavia, native Atlantic Ocean species recently established a foothold in the Arctic, displacing smaller fish that had trouble competing. How far creatures from the open oceans will be able to penetrate the Arctic remains to be seen. But with the region warming twice as fast as the planet as a whole, there's little reason to think that this trend will end. [Read More at Washington Post](#)



Credit: Jessie Creamean

WILDFIRE SEASON: IS THIS THE NEW NORMAL?

You do not expect extensive wildfire in Swedish mountain tundra or in Welsh mountains, but we see that this year. This is further evidence of remarkably fast changes in climate around the world as a result of new extremes of heat and variable precipitation, due to human-introduced greenhouse gasses. A decade ago scientists predicted a whopping 75%–120% increase in the amount of area burned each year, and now it is happening. The risk of fire can be predicted with coupled climate and water models. Once the risk of fire is high it is harder to say exactly where the fire will start because the start is often from a dropped match or a spark from a vehicle or a lightning strike. But it is possible to say where the risk is high.

[Read More at University of Saskatchewan News](#)



Credit: U.S. Fire Administration



Credit: Anders Hellberg

THE FIFTEEN-YEAR-OLD CLIMATE ACTIVIST WHO IS DEMANDING A NEW KIND OF POLITICS

Swedish 15-year-old Greta Thunberg has been protesting for more than a month. She is demanding that the government undertake a radical response to climate change. She said that a number of members of parliament have come out to the steps to express support for her position; although every one of them has said that she should really be at school. She has written a piece called "Sweden is Not a Role Model," in which she points out that even the best-laid plans to address climate change make no attempt to look beyond the year 2050. "By then I will, in the best case, not even have lived half my life. What happens next? The politics that is needed to prevent the climate catastrophe does not exist today. We need to change the system, as if we were in crisis, as if there were a war going on." [Read More at The New Yorker](#)



STEMMING THE GLOBAL CAESAREAN SECTION EPIDEMIC

The Series shows that the global rate of caesarean birth has doubled in the past 15 years to 21%, and is increasing annually by 4%. While in southern Africa use of caesarean section is less than 5%, the rate is almost 60% in some parts of Latin America, including in Brazil where *The Lancet Series* was launched. Increases in obesity, age, and nulliparity among populations of women are not enough to explain increases. Addressing the non-medical reasons that drive caesarean sections, therefore, is key to reducing inappropriate use. To facilitate better communication and women-centred care, the best recommendation in the new WHO guidance is the collaborative midwifery-obstetrician model whereby primarily midwives provide care. The Series shows midwifery care to be associated with more vaginal births, safer outcomes, positive maternal experiences and lower costs, and an accompanying Comment clearly supports the role of midwives in reducing caesarean section use.

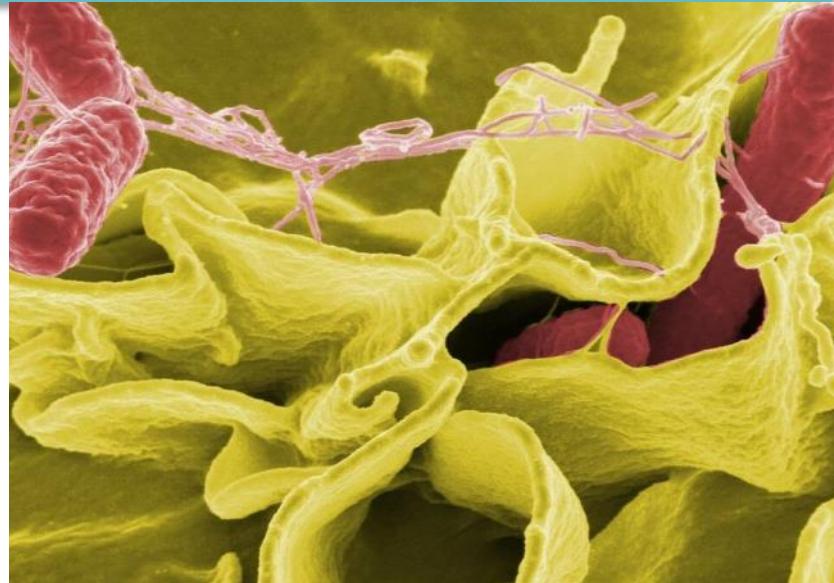
[Read More at The Lancet](#)



Credit: AFP Photo

TOPICAL ANTIBIOTIC TRIGGERS UNEXPECTED ANTIVIRAL RESPONSE

A Yale-led research team made a startling discovery while investigating the effect of bacteria on viral infections. When they applied a common topical antibiotic to mice before or shortly after infection with herpes and other viruses, they found that the antibiotic triggered antiviral resistance in the animals. They studied gene expression in the treated mice and observed greater expression of genes that are stimulated by interferons - proteins that block viral replication. Through further investigation, they determined that neomycin triggered a receptor in the mouse immune cells that responded to the antibiotic as if it was a viral infection. The researchers also confirmed neomycin's antiviral effect in mice infected with the flu and Zika viruses. [Read More at Science Daily](#)



Credit: Ziba Kashef



HOW WILL 9 BILLION OR 10 BILLION PEOPLE EAT WITHOUT DESTROYING THE ENVIRONMENT?

A core message from the researchers is that efforts to keep climate change at an acceptable level won't be successful without a huge reduction in meat consumption. A sobering report published Wednesday in the journal *Nature* argues that a sustainable food system that doesn't ravage the environment is going to require dramatic reforms, including a radical change in dietary habits. "Feeding humanity is possible. It's just a question of whether we can do it in an environmentally responsible way," said Johan Rockström, an earth scientist. At the core of this research is the argument that Earth has several limits, the "planetary boundaries," that can't be exceeded without potentially dire consequences. These boundaries — which involve factors such as climate change, loss of biodiversity, deforestation, atmospheric aerosols (smog), stratospheric ozone depletion and the supply of fresh water — define the "safe operating space" for humanity. [Read More at The Washington Post](#)



AN UNTAPPED APPROACH TO ENSURE HEALTHIER MOTHERS AND BABIES



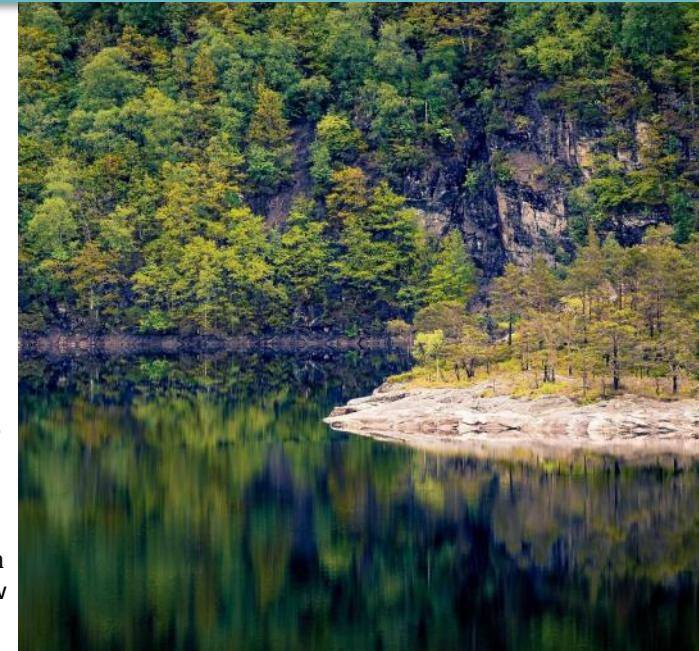
What if we knew there was a proven intervention that can prevent millions of maternal, infant, and child deaths? One that could make a dramatic contribution toward ensuring universal access to sexual and reproductive health and rights by 2030, as laid out in the United Nations' Sustainable Development Goals (SDGs). The project, called Post Pregnancy Family Planning Choices, is implementation research that aims to improve access to facility-based family planning for women prior to discharge, while generating evidence and recommendations for both the public and private sectors. It focuses on two countries, Kenya and Indonesia, whose contexts - vastly different in many ways - can yield illuminating and diverse insights from two continents. [Read More at Devex](#)

Credit: USAID / Bread for the World / CC BY-ND

SPOTLIGHT ON POLICY:

UNDER2 COALITION TO SUPPORT REGIONAL GOVERNMENTS TO TRACK EMISSIONS AND PLAN PATHWAYS WITH NEW GLOBAL PROJECT

The Under2 Coalition secured its second multi-million dollar grant this month, delivering on its promise to move from commitment to implementation. The project is part of [Norway's International Climate and Forest Initiative \(NICFI\)](#) and will support governments in emerging economy regions to track emissions and plan pathways to achieve their climate targets. [The Climate Group](#), as Secretariat of the Under2 Coalition, is partnering with [The Governors' Climate and Forests Task Force \(GCF\)](#) as primary REDD+ knowledge partner for this project to help regions build Measurement, Reporting and Verification (MRV) systems and long-term deep decarbonization pathways. States and regions in Peru, Brazil, Mexico, Colombia, Ecuador, Indonesia and India will be considered for tailored capacity building support through the project, starting in early 2019. The Climate Group will also form a knowledge partnership with the Low Emission Development Strategies Global Partnership (LEDS GP). [Read More at Under2Coalition](#)



Credit: Nextvoyage/Pexels

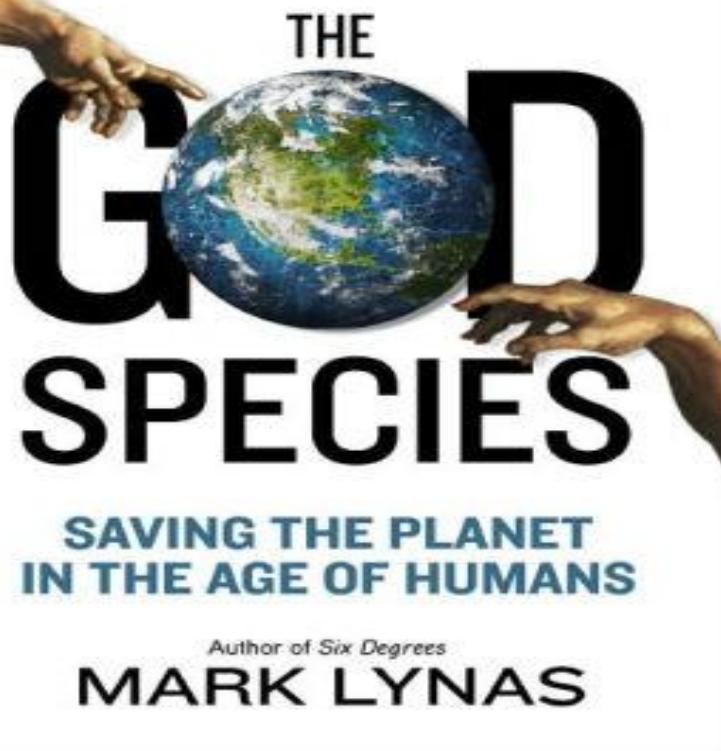
SPOTLIGHT ON INDIGENOUS HEALTH:

IT'S INDIGENOUS PEOPLES DAY. DO YOU KNOW WHOSE STOLEN LAND YOU'RE ON?

Honouring the millions of people who lived here long before and after Columbus' non-discovery instead of him feels like a no-brainer. It counters the act of forgetting and rendering Indigenous peoples invisible. One easy way for us to remember and honour Indigenous peoples in our lives is by recognizing that the rest of us are living on stolen land. One way is to do it through land acknowledgment, which is an intentional and formal statement made in tribute to the land's original inhabitants. Not all of us are leaders of states, cities or events, but we can do our part: look up whose land we're on right now. Use it as an opportunity to consider how colonization has contributed to where we are today. Whose land are you on? What can you learn about their history and present? [Read More at Daily Kos](#)

See Also: <https://www.whose.land/en/>

HONOR NATIVE LAND



“Nature no longer runs the Earth. We do. It is our choice what happens from here.”

Environmental activist Mark Lynas, in his book [“The God Species: Saving the Planet in the Age of Humans”](#)

[Read More at The Washington Post](#)

Credit: Mark Lynas

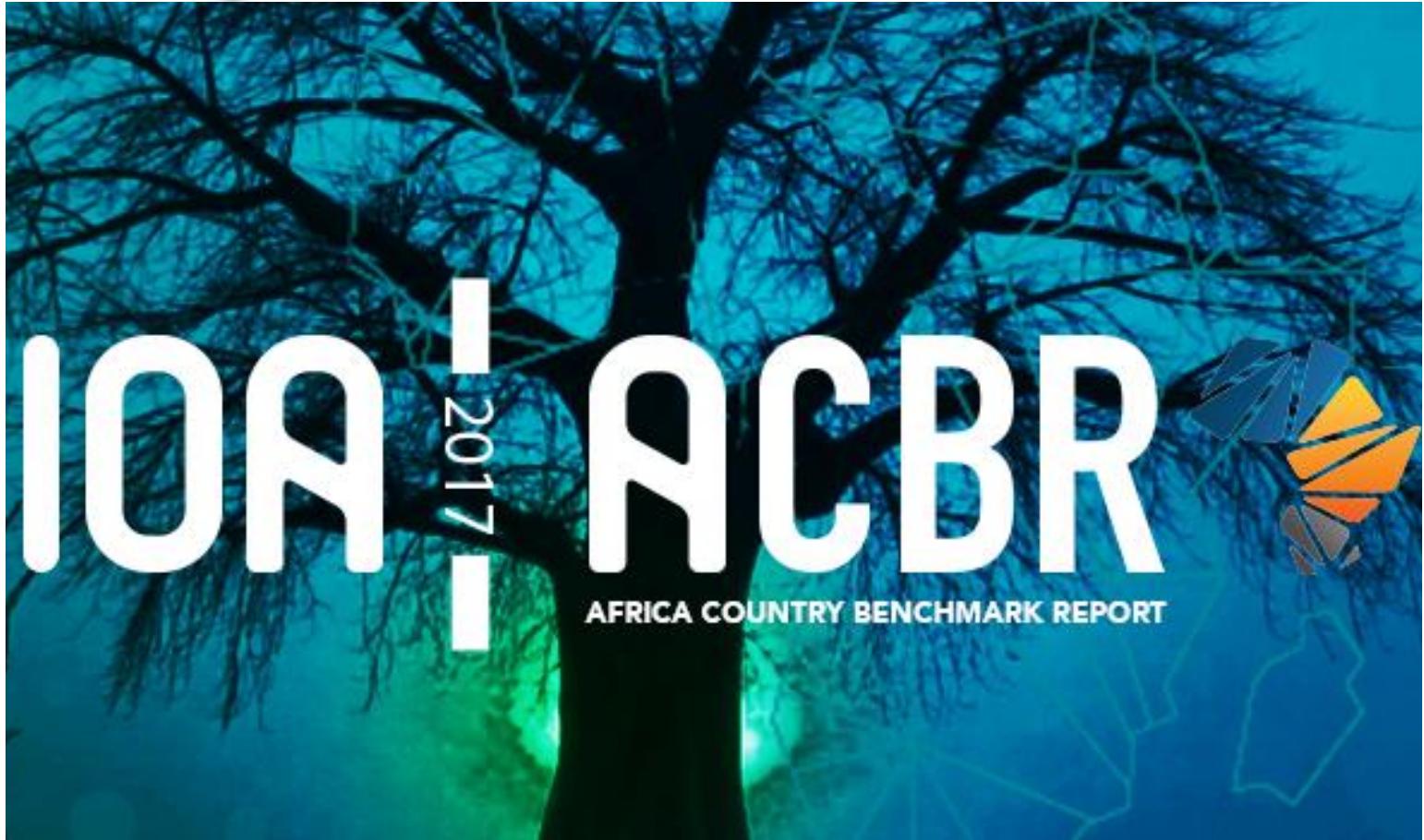
EVENTS TABLE

DATE	CONFERENCE	LOCATION	REGISTER
Oct. 18th	Integrative Health Institute Conference	Edmonton Canada	https://www.ualberta.ca/integrative-health-institute
Oct. 25th-26th	Global Conference on Primary Health Care	Astana Kazakhstan	http://www.who.int/primary-health/conference-phc
Nov. 6th-13th	Course announcement: The Struggle for Health	Savar Bangladesh	https://iphu.org/en/announcement/iphu-savar2018
Nov. 8th-9th	Workshop: Rules of the Road 2.0	Washington USA	https://www.cugh.org/events/workshop-rules-road-20
Nov. 15th-19th	4th People's Health Assembly	Dhaka Bangladesh	https://archive.phmovement.org/en/node/10805
Nov. 19th-21st	Canadian Conference on Global Health	Toronto Canada	http://www.csih.org/en/events/canadian-conference-global-health
Mar. 8th-10th	10th Annual CUGH Conference—Translation and Implementation for Impact in Global Health	Chicago USA	https://www.cugh.org/events/2019-annual-cugh-global-health-conference





THE AFRICA COUNTRY BENCHMARK REPORT (ACBR) 2017



Credit: In on Africa

In On Africa (IOA) is proud to announce the launch of the 2nd edition of the Africa Country Benchmark Report (ACBR) – a definitive resource for understanding Africa.

ACBR is the most comprehensive assessment of all 54 African countries, drawing from more than 19,000 data points, 34 internationally recognized indexes and various key indicators. The report scores, ranks and insightfully assesses each African country holistically, as well as across business, economic, political and social factors.

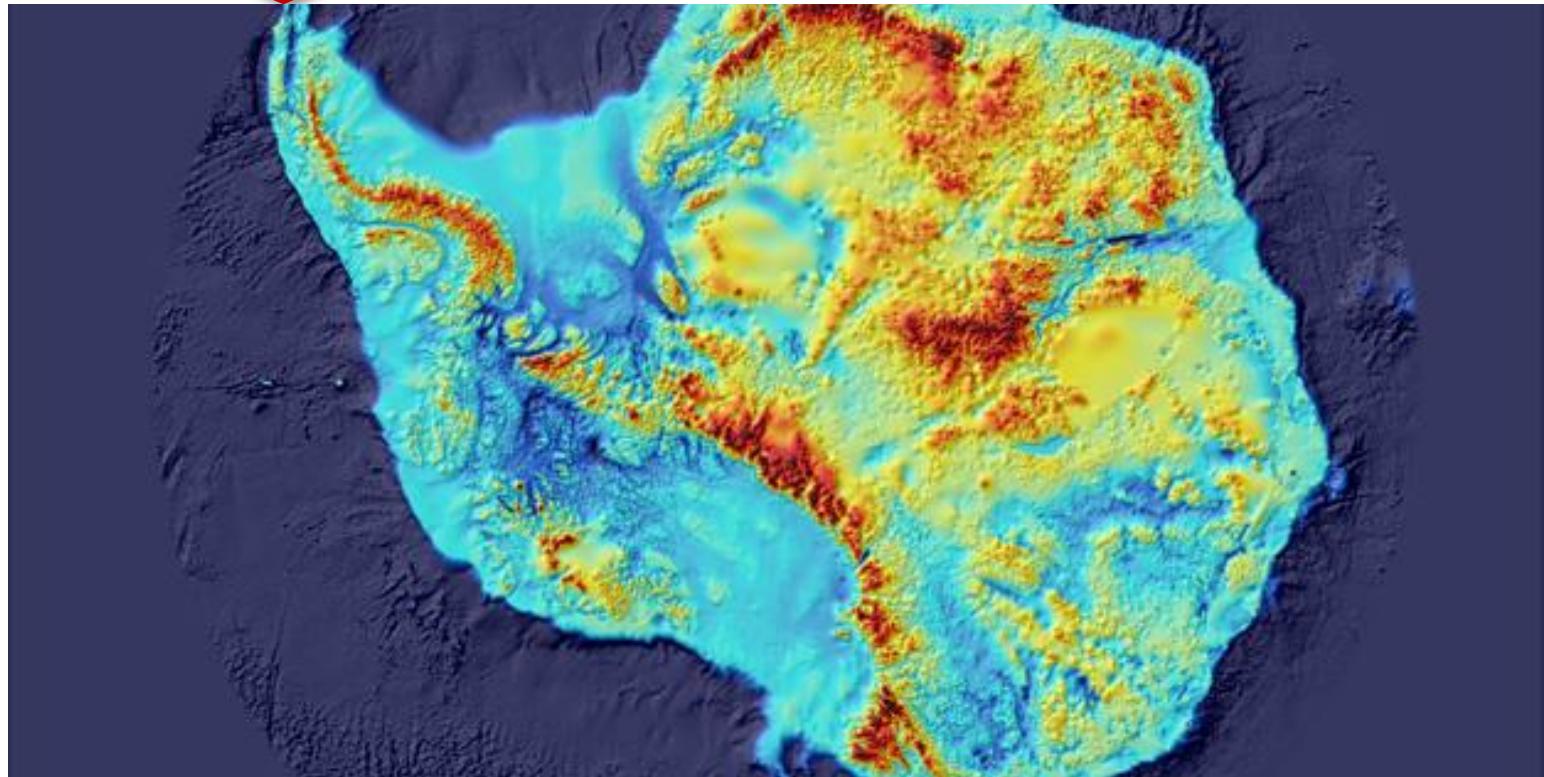
This ground breaking publication is an invaluable tool for any business, government, organisation or institution that will benefit from country-specific and comparative assessments of the African continent, revealing key opportunities, risks, gaps, needs and successes.

[Read More at In On Africa](#)





A NEW MAP OF ANTARCTICA IS DETAILED ENOUGH TO SEE A CAR PARKED ON AN ICE SHELF



Credit: Bedmap Consortium

Maps of Antarctica used to be notoriously low resolution. But that's changed with a new map that researchers say is not only the most detailed survey of the South Pole in history, but also the best map of any continent. To create the map, researchers at the University of Minnesota and Ohio State University gathered millions of stereoscopic images taken of Antarctica by satellites between 2009 and 2017. Then they used the Blue Waters supercomputer at the University of Illinois at Urbana-Champaign to stitch those 150 terabytes of data together into a map that shows both the visual terrain of the frozen continent and its elevation at every point.

The result is the Reference Elevation Model of Antarctica (REMA), a map so accurate that you could spot a single car parked on an ice shelf. The researchers also set up a page where you can explore REMA yourself. According to REMA's creators, the map will help researchers plot safer routes between science stations. It will also be useful in the battle against climate change. The plan is to update REMA at least once per year, which will let climate researchers track melting ice, thinning glaciers, and the activity of rivers and volcanoes.

[Read More at Futurism](#)





TALKING CLIMATE WITH THE ALBERTA NARRATIVES PROJECT



Credit: D'Arcy Leck

Few issues facing Canada are nationally divisive as climate change and the future of energy. But in Alberta, often referred to as ground zero for climate change as the home of Canada's oil sands, people are for more respectful and constructive conversation. The Alberta Narratives Project aims to replace a combative and acrimonious debate with a constructive conversation based on shared values and respect for people's different ways of seeing the world. What language works well and crucially - what language poses an obstacle to a productive conversation?

Our report presents key findings and insights from over 50 province-wide discussions with nearly 500 people from a wide range of groups representing the fabric of Alberta: farmers, oil and gas workers, policymakers, youth, environmental activists, business leaders, faith leaders, new Canadians and many more. The Alberta Narratives Project is part of the Global Narratives Project, a collaborative initiative to train national and regional partners to test and develop climate change communications that speak to their shared values and identity. The project methodology was piloted in India and will begin in Lebanon in the near future. [Read More at Climate Outreach](#)





SALT LAKE CITY PUSHES GREEN POWER ON THE INTERNATIONAL STAGE



Credit: Rick Egan/The Salt lake Tribune

For Salt Lake City Mayor Jackie Biskupski, the Sustainable Development Goals (SDGs) are parallel to the work she is doing to make her city 100% clean-energy powered by 2032. Salt Lake City boasts the first two “net-zero” fire departments in the United States and Ms. Biskupski is currently building the first police department that is 100% renewable-energy driven, as well as an energy-neutral international airport.

Talking to UN News's Liz Scaffidi at UN Headquarters, the mayor shared her goal of making Salt Lake City inclusive, safe, resilient and sustainable. She announced that next year, Utah would host the annual UN Public Information/NGO Forum on US soil for the first time – with a focus on implementing the 2030 Agenda for Sustainable Development. [Read More at UN News](#)





THIS SOUTH AFRICAN CAVE STONE MAY BEAR THE WORLD'S OLDEST DRAWING



Credit: Craig Foster

Ancient humans sketched the line pattern around 73,000 years ago by running a chunk of pigment across a smoothed section of stone in Blombos Cave, South Africa, scientists say. Until now, the earliest drawings dated to roughly 40,000 years ago on cave walls in Europe and Indonesia. The discovery "helps round out the argument that *Homo sapiens* [at Blombos Cave] behaved essentially like us before 70,000 years ago," says archaeologist Christopher Henshilwood of the University of Bergen in Norway.

Crosshatched designs similar to the drawing have been found engraved on shells at the site. So the patterns may have held some sort of meaning for their makers. But it's hard to know whether the crossed lines represent an abstract idea or a real-life concern. Some modern hunter-gatherer societies create abstract-looking designs that actually depict animals, objects or people, he says. Whatever the drawing's original significance, it shows that Stone Age folk in southern Africa communicated something they considered important by applying crosshatched patterns to different surfaces, says archaeologist Paul Pettitt of Durham University in England. "If there is any point at which one can say that symbolic activity had emerged in human society, this is it." [Read More at Science News](#)





WHAT INTERNATIONALIZATION MEANS TO THREE HIGHER ED LEADERS



Credit: McMasterUTV

To look deeper into this crucial aspect of internationalization, we caught up with McMaster University President Patrick Deane, who has made a priority of reaching across borders and promoting international partnerships. Throughout this work in international partnerships, Deane notes that it is crucial for Canadian schools not to fall into the trap of paternalism, where one institution narrowly sees itself as the “giver” of knowledge and sees its international partners as passive “receivers.” “If you want your institution to be a global force for discovery and innovation, you need to approach these partnerships with a sense of mutual exchange and co-operation, and be open to the ways that they can benefit you and your institution.”

Deane also notes that another continuing challenge is for Canadian institutions to resist approaching global partnerships exclusively through either altruistic or economic lenses. “On the one hand, you’ll have people who say that this kind of work is a moral obligation, and there’s truth to that, but seeing this work only in those terms will create that problem I mentioned earlier, where the institution sees itself as a mere giver of knowledge. On the other hand, you have people who want to measure the impact of these projects in exclusively economic terms, asking only about how they benefit the Canadian institution and its students. You need to find that third way of seeing to uncover all the different types of value these projects can create for both parties.”

[Read More at Academica Forum](#)





Sunrise Beauties
Amboseli National Park

Kenya

October 16, 2018

Credit: David Zakus

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